

IN THE CLAIMS

Claims 1-6. (Canceled)

7. (Currently Amended) A method for the preparation of a cathode active material composed of a compound having a general formula comprising Li_xFePO_4 , where $0 < x \leq 1.0$, and a carbon material, with having a carbon content per unit weight being not less than 3 wt% and with a powder density being not lower than 2.2 g/cm^3 , comprising:

mixing a plurality of starting materials for synthesis for a compound represented by the general formula Li_xFePO_4 ; and

milling and sintering the resulting mixture; and
adding [[a]] the carbon material at any time point in during the course of the mixing, milling and sintering,

wherein said the carbon material has a Raman spectrum with a D peak at is such that, with an intensity area appearing in a number of waves of 1350 to 1360 cm^{-1} and a G peak at an intensity area appearing in the number of waves of 1570 to 1590 cm^{-1} in the Raman spectrometry being D and G, respectively, and an intensity area ratio A of D to G is ≥ 0.30 ; and

wherein lithium phosphate (Li_3PO_4) and iron phosphate hydrates hydrates ($\text{Fe}_3(\text{PO}_4)_2 \cdot n\text{H}_2\text{O}$ $\text{Fe}_3(\text{PO}_4)_2 \cdot n\text{H}_2\text{O}$, where n denotes the number of water molecules) are used as the starting material for the synthesis of Li_xFePO_4 .

8. (Original) The method for the preparation of the cathode active material

according to claim 7 wherein said carbon material is added before milling.

9. (Original) The method for a preparation of the cathode active material

according to claim 7 wherein said carbon material is added after sintering and wherein said milling is carried out after addition of the carbon material.

10. (Cancelled)

11. (Original) The method for the preparation of the cathode active material

according to claim 7 wherein said sintering is carried out in a temperature range of 400 C to 900 C.

12. (Currently Amended) A method for a preparation of a non-aqueous electrolyte cell including a cathode containing a cathode active material ~~composed of a compound having a general formula comprising~~ Li_xFePO_4 where $0 < x \leq 1.0$, and a carbon material, with a carbon content per unit weight being not less than 3 wt% and with a powder density being not lower than 2.2 g/cm^3 , an anode containing an anode active material, and a non-aqueous electrolyte, ~~said method including comprising~~

mixing a plurality of starting materials for synthesis for a compound represented by the general formula $\text{Li}_x\text{FePO}_4[.,.]$;

milling and sintering the resulting mixture; and

adding [[a]] ~~the~~ carbon material at any time ~~point in~~ during the course of the mixing, milling and sintering,

wherein said carbon material is such that, with an intensity area appearing in a number of waves of 1350 to 1360 cm^{-1} and an intensity area appearing in the number of waves of 1570 to 1590 cm^{-1} in the Raman spectrometry being D and G, respectively, an intensity area ratio A of D to G is ≥ 0.30 , wherein lithium phosphate (Li_3PO_4) and iron phosphate ~~hydrates~~ hydrates ($\text{Fe}_3(\text{PO}_4)_2 \cdot n\text{H}_2\text{O}$, where n denotes the number of water molecules), are used as the starting material for the synthesis of Li_xFePO_4 .

13. (Original) The method for the preparation of a non-aqueous electrolyte cell

according to claim 12 wherein said carbon material is added before milling.

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14. (Original) The method for the preparation of the non-aqueous electrolyte cell according to claim 12 wherein said carbon material is added after sintering and wherein said milling is carried out after addition of the carbon material.

15. (Canceled)

16. (Original) The method for the preparation of the non-aqueous electrolyte cell according to claim 12 wherein said sintering is carried out in a temperature range of 400 C to 900 C.

17. (Original) The method for the preparation of the non-aqueous electrolyte cell according to claim 12 wherein said non-aqueous electrolyte is a solution-based non-aqueous electrolyte.

18. (Original) The method for the preparation of the non-aqueous electrolyte cell according to claim 12 wherein said non-aqueous electrolyte is a polymer-based non-aqueous electrolyte.

19. (New) A method for the preparation of a cathode active material comprising Li_xFePO_4 , where $0 < x \leq 1.0$, and a carbon material having a carbon content per unit weight not less than 3 wt% and a powder density not lower than 2.2 g/cm^3 , comprising:

mixing a plurality of starting materials for synthesis for a compound represented by the general formula Li_xFePO_4 ;

milling and sintering the resulting mixture; and

adding the carbon material at any time during the course of the mixing, milling and sintering;

wherein lithium phosphate (Li_3PO_4) and iron phosphate hydrates ($\text{Fe}_3(\text{PO}_4)_2 \cdot n\text{H}_2\text{O}$, where n denotes the number of water molecules) are used as the starting material for the synthesis of Li_xFePO_4 .

20. (New) A method for the preparation of a cathode active material comprising Li_xFePO_4 , where $0 < x \leq 1.0$, and a carbon material having a carbon content per unit weight not less than 3 wt% and a powder density not lower than 2.2 g/cm^3 , comprising:

mixing a plurality of starting materials for synthesis for a compound represented by the general formula Li_xFePO_4 ;

milling and sintering the resulting mixture; and

adding the carbon material at any time during the course of the mixing, milling and sintering;

wherein the number of water molecule n is equal to or greater than 1.

21. (New) The method for the preparation of the cathode active material according to claim 7 wherein the milling is carried out by one of a planetary ball mill, a shaker type ball mill, and a mechano-fusion mill.